

d his

(FILE 'HOME' ENTERED AT 10:31:38 ON 28 JAN 2000)

FILE 'REGISTRY' ENTERED AT 10:31:43 ON 28 JAN 2000

L1 43 (2<ZN<30 AND 0<NI<2 AND 0<SN<1 AND 0<P<.5 AND 50<CU)/MAC

FILE 'HCA' ENTERED AT 10:32:32 ON 28 JAN 2000

L2 62 L1

L3 66086 (COPPER OR CU) (1A) (ALLOY OR BALANC? OR REMAIN? OR BASE? OR

REST

L4 775 L3 AND (ZINC OR ZN) AND (TIN OR SN) AND (NICKEL OR NI) AND

(PHO

L5 26 L2 AND L4

SELECT L5 1- IPC

L6 465647 E1-E28

L7 604 L6 AND L4

L8 578 L7 NOT L2

L9 425 L8 AND (IRON OR FE)

L10 174 L9 AND (OXYGEN OR O OR S OR SUL? OR C OR CARBON)

E BREEDIS JOHN F/IN,AU

L11 39 E3-E4

E CARON RONALD N/IN,AU

L12 28 E3-6

E DEPPISCH CARL L/IN,AU

L13 1 E5

L14 55 L11 OR L12 OR L13

L15 4 L14 AND L4

AN 129:263967 HCA
 TI **Copper-based alloy** excellent in corrosion resistance, hot workability, and resistance to stress corrosion cracking, and process for producing the **copper-based alloy**
 IN Mizoguchi, Tadao; Itoh, Kozo; Yajima, Kazuaki
 PA Kitz Corporation, Japan
 SO PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 9845490	A1	19981015	WO 1998-JP1624	19980408
	W: US				
	RW: DE, FR, GB, IT				
	JP 10317078	A2	19981202	JP 1997-105312	19970408
PRAI	JP 1997-105312		19970408		
	JP 1997-82230		19970314		
AB	A low-cost alloy contains Cu 58.0-63.0, Pb 0.5-4.0, P 0.05-0.25, Sn 0.5-3.0, Ni 0.05-0.30%, and Zn as the balance. The alloy has homogeneously and finely divided structure providing for excellent corrosion resistance and hot workability. The alloy also has high resistance to stress corrosion cracking and hot forgeability.				

AN 120:250880 HCA
TI **Copper alloys** for heat exchangers and their
manufacture
IN Yamamura, Tai; Sugawara, Akira
PA Dowa Mining Co, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 05311292	A2	19931122	JP 1992-139894	19920501

AB The **Cu alloys** contain **Zn** 8-20, **Ni** 0.3-1.5, **Sn** 0.3-1.2, and **P** 0.005-0.20% and satisfy **Ni + Sn** 0.8-2.5% and **Ni/P** wt. ratio 5-50. The alloys are manufd. from **Cu alloy** raw materials having the above compns. by recrystg., finish-annealing, cold-rolling at draft 1-15%, and low-temp. annealing at 100-400.degree. for 5-600 s. The alloys have high strength, moldability, and resistance to stress corrosion cracking and are esp. suitable for automotive radiators.

AN 120:141516 HCA
 TI **Copper alloys** for heat exchangers and alloy
 preparations
 IN Yamamura, Tai; Sugawara, Akira; Sato, Fumihiro; Kosaka, Michihiro
 PA Dowa Mining Co, Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 05311294	A2	19931122	JP 1992-142128	19920507
AB	Cu alloys contg. Zn 8-25, Ni 0.1-1.5, Sn 0.1-1.2, P 0.001-0.10, and B 0.001-0.06% with Ni + Sn = 0.4-2.5% and Ni:P wt. ratio = 5-50 are recrystd., finish annealed, cold rolled at 1-15% draft, and low-temp. annealed for 5-600 s at 100-400.degree.. The alloys have high strength, workability, and resistance to stress corrosion cracking.				

AN 120:250880 HCA
TI **Copper alloys** for heat exchangers and their
manufacture
IN Yamamura, Tai; Sugawara, Akira
PA Dowa Mining Co, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05311292	A2	19931122	JP 1992-139894	19920501

AB The **Cu alloys** contain **Zn** 8-20, **Ni** 0.3-1.5, **Sn** 0.3-1.2, and **P** 0.005-0.20% and satisfy **Ni + Sn** 0.8-2.5% and **Ni/P** wt. ratio 5-50. The alloys are manufd. from **Cu alloy** raw materials having the above compns. by recrystg., finish-annealing, cold-rolling at draft 1-15%, and low-temp. annealing at 100-400.degree. for 5-600 s. The alloys have high strength, moldability, and resistance to stress corrosion cracking and are esp. suitable for automotive radiators.

AN 118:173919 HCA
TI **Copper alloy** for heat exchangers
IN Sugawara, Akira; Yamamura, Tai; Kosaka, Michihiro
PA Dowa Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04354843	A2	19921209	JP 1991-228175	19910531

AB A **Cu alloy** suitable for heat exchangers contains
Zn 7-18, **Ni** 0.5-3.0, **Sn** 0.5-2.0, and **P**
0.01-0.20%. The alloy has crystal grain size 0.005-0.035 mm, tensile
strength .gtoreq.33 kg/mm², and Erichsen value .gtoreq.11 mm. The alloy
has also high formability and stress-corrosion cracking resistance.

AN 127:89210 HCA
 TI Electrically conductive **copper alloy** with excellent strength and formability for electric apparatus, and semiconductor apparatus lead materials
 IN Tomioka, Yasuo
 PA Nippon Mining Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09157775	A2	19970617	JP 1995-317032	19951113
PRAI	JP 1995-272074	19950927			
AB	<p>The Cu alloy contains 0.05-0.4 wt.% Cr; 0.03-0.25 wt.% Zr; 0.06-2.0 wt.% Zn; 5-50ppm O; 5-20ppm S; and optionally 0.1-1.8 wt% Fe, 0.1-0.8 wt.% Ti, and 0.01-1.0 wt.% (as total) of .gtoreq.1 selected from Ni, Sn, In, Mn, P, Mg, and Si; and has crystal grain size .ltoreq.50.mu.m, and surficial oxide film .ltoreq.100.ANG.. A semiconductor app. lead material made of the alloy is also claimed. The alloy shows excellent solderability, oxidn. resistance, etching property, and press formability.</p>				

AN 127:54356 HCA
 TI Copper-zirconium-**tin-zinc** alloys for electric and
 electronic parts
 IN Ota, Makoto; Shimada, Takeshi
 PA Hitachi Cable, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 09118944	A2	19970506	JP 1995-277702	19951025
AB	The Cu alloys contain Zr 0.01-0.1, Sn 0.5-2.0, Zn 0.5-5, and optionally Ag, Si, Cr, Co, Mn, Ni , P , Fe , Ti, B, Be, and/or Al .ltoreq.0.5% and have O2 content 30 ppm. The alloys have improved mech. strength and elec. cond.				

AN 109:195466 HCA
 TI High-strength **copper alloy** for semiconductor leads or
 electric conductive springs
 IN So, Hidehiko; Kawahara, Tetsuo
 PA Nippon Mining Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63130739	A2	19880602	JP 1986-275152	19861120
AB	<p>The Cu alloy contains Ni 0.4-4.0, Si 0.1-1.0, and optionally Zn, P, Sn, As, Cr, Mg, Mn, Sb, Fe, Co, Al, Ti, Zr, Be, Ag, Pb, B, and/or lantinide element 0.001-3.0% with impurities of S .ltoreq.0.0015 and P .ltoreq.0.0020%. Thus, Cu alloy contg. Ni 0.60, Si 0.14, O 0.0012, S 0.0003, Mn 0.04% showed tensile strength 52 kg/mm2, elongation 10%, crit. spring strength 40 kg/mm2, and elec. cond. (% IACS) 53, and was brazed without buckling.</p>				